REMARKS

Applicant respectfully presents Claims 6, 7, 9, 15, 16, 18 and 26 for examination in the RCE filed herewith. Claims 1-5, 8, 10-14, 17 and 19-25 were previously canceled and Claims 6, 15 and 26 have been amended herein to more clearly define the scope of the presently claimed invention. No new claims have been submitted. Applicant respectfully submits that the claims and remarks presented herein overcome the Examiner's rejections in the Final Office Action dated August 25, 2005 in the parent application.

35 U.S.C. §103

Claims 6, 7, 9, 15, 16, 18 and 26 stand rejected under 35 U.S.C. §103 as being unpatentable over Kuhn et al (U.S. Patent No. 6,553,345, "Kuhn") in view of Kanevsky et al. (U.S. Patent No. 6,587,818, "Kanevsky"). The Examiner suggests that although Kuhn fails to disclose an elimination procedure to select a final phrase, Kanevsky discloses this element and that it would have been obvious to one of ordinary skill in the art to combine Kuhn with Kanevsky. Applicant respectfully traverses the Examiner's rejection.

Once again, Applicant respectfully submits that the Examiner inappropriately combined Kuhn and Kanevsky. Kuhn describes a universal remote control that allows natural language modality for television and multimedia searches and requests. The reference describes a remote control that accepts spoken commands and utilizes speech recognition to search through an electronic program guide or movie database to respond to the user (Kuhn, Col. 1, lines 36-50). Kanevsky, on the other hand, describes a system and method for resolving decoding ambiguity via dialog. More specifically, Kanevsky provides a method and system for improving language decoding performance and accuracy by periodically suspending recognition and presenting questions to the user that enable discrimination between potential response classes (Kanevsky, Abstract, Col. 1 lines 51-53). The mere fact that both references, generally speaking, touch on speech recognition does not in and of itself render a combination obvious. As set out in M.P.E.P. § 706.02(j), "(t)here must be some suggestion or motivation, either in the

references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings."

Applicant respectfully submits that there is no such suggestion or motivation in the present case. The Examiner submits that the motivation for the combination is that "it would have been obvious to one having ordinary skill in the art to utilize the system and method for resolving decoding ambiguity to iteratively eliminate phrases until a final phrase is obtained as taught by Kavensky et al, in the multi-modal dialog unit of Kuhn at al. for the purpose of improving language decoding performance and accuracy." The Examiner additionally suggests that "A motivation to improve language decoding performance and accuracy by providing a method of resolving ambiguities in language recognition, as expressly stated by Kanevsky et al. at Column 1, lines 50-60, constitutes a reason for combination, and a rationale for prima facie obviousness." The Examiner finally states that both Kuhn and Kanevsky represent systems and methods for speech recognition involving interactive dialogues and provide methods for improving speech recognition. The Examiner thus concludes that Kuhn and Kanevsky provide cumulative methods for improving speech recognition performance involving interactive dialogues. (Final Office Action, Pages 8-9, August 25, 2005). Applicant strongly disagrees.

First and foremost, Applicant highlights the fact that speech recognition spans various technology areas, not all of which would be obvious to combine. As a result, various references may include the use of speech recognition without necessarily qualifying as analogous areas of art. Different industries, for example, may focus on significantly different aspects of speech recognition (e.g., in some industries a high degree of accuracy may be important while in others the speed of recognition may be more important than the accuracy). Speech recognition as applied in these various fields may thus be significantly different and it may not be obvious for those of ordinary skill in the art in one technology area to combine their ideas and/or knowledge with a different area of technology. In other words, the knowledge possessed by those of "ordinary skill" in these different technological fields may vary vastly.

In the present case, the focus is Kuhn appears to be the remote control unit and its interaction with an electronic programming guide. Kuhn appears to utilize various speech recognition techniques to achieve the desired result of a remote control unit that

enables users to verbally select programs for viewing. (Kuhn, Abstract) The focus in Kuhn, however, does not appear to be on increasing accuracy. Rather, the focus appears to be the interaction between the natural language parser and the stored semantic representation of the electronic program guide (Kuhn, Col. 4, lines 11-Col. 7, line 58). Thus, the interactive dialogues presented to the user are designed to allow a user to narrow down the selections of various movies, for example, that meet the user's initial verbal command (Kuhn, Col. 4, lines 40-54). This is significantly different than trying to improve the system's recognition of the user's commands.

Kanevsky, on the other hand, describes a scheme to improve language response systems (Kanevsky, Col. 1, lines 46-47). The solution described in Kanevsky involves an interactive deciding scheme whereby as ambiguity is encountered, recognition is suspended to present questions to the user that will discriminate between potential response classes (Kanevsky, Col. 2, lines 6-8). The Examiner appears to be suggesting that since Kuhn generates a list of potential programs from the programming guide for the user based on the user's verbal input and then enables users to provide additional information (i.e., via interactive questions for the user, similar to Kanevsky) to further narrow down the input, that this renders a combination of Kuhn and Kanevsky obvious.

Applicant strongly disagrees with this characterization. By the Examiner's definition, any and all publications relating to speech recognition would be obvious to combine. Both these references happen to utilize a scheme whereby manual input is required to narrow down the choices, but Applicant respectfully submits that this cannot be generically categorized as "improving speech recognition". Instead, while Kanevsky is focused on improving speech recognition, Kuhn appears to be focused on allowing users to narrow down their choices to satisfy their requests. Kuhn does not focus on improving recognition of the user's verbal command, as does Kanevsky. Applicant respectfully submits that this difference in focus renders these references a non-obvious combination for the purposes of 35 U.S.C. § 103. As previously stated, based on the guidelines provided by the M.P.E.P. "(t)here must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." (M.P.E.P. § 706.02(j)). Applicant respectfully submits that, as discussed above, the focus

in each reference is so different, there is nothing in either reference to suggest a combination.

In summary, Applicant respectfully maintains that the Examiner's "motivation" to combine Kuhn with Kanevsky is purely conclusary and based solely on hindsight. Applicant respectfully reiterates that the mere fact that a combination may provide an advantage does not necessarily prove that there was a motivation to combine the references in the manner suggested by the Examiner. Applicant additionally emphasizes that a desirable result cannot in and of itself be deemed to be a motivation and therefore respectfully submits that the combination of these references is improper. Applicant therefore respectfully requests the Examiner to withdraw the rejections to Claims 6, 7, 9, 15, 16, 18 and 26 based on these references.

Even assuming arguendo the references were properly combined, Kuhn and Kanevsky do not render Claims 6, 7, 9, 15, 16, 18 and 26 unpatentable. Applicant respectfully submits that the Examiner has failed to show how Kuhn and Kanevsky render Claims 6, 15 and 26 (and all claims dependent on those claims) unpatentable. Claim 6 is a method claim directed to an embodiment of the invention, while Claims 15 and 26 are corresponding article and system claims. The Examiner collectively rejects Claims 6 and 15 (and all dependent claims) based on the same rationale (Final Office Action, Pages 2–5, August 25, 2005) and provides a rejection to Claim 26 separately (Final Office Action, Pages 5-6, August 25, 2005). As such, in accordance with the Examiner's groupings, Applicant shall address the rejections to Claims 6 and 15 collectively and to Claim 26 independently.

Kuhn and Kanevsky, alone or in combination, do not teach or suggest at least a number of elements of independent Claims 6 and 15. Applicant respectfully submits that the Examiner fundamentally misunderstands the claimed invention. Applicant is not attempting to claim any discrete elements of the invention, but rather a combination of elements. As described by the title of the invention and reiterated in the specification, the invention is directed to *improving* N-best processing in the presence of voice recognition uncertainty. Applicant is not attempting to claim all N-best processing schemes. As described in the Specification, the "N-best" style of voice recognition is known and supported by many speech recognition engines in response to voice recognition

uncertainty. In this mode, the speech recognizer returns a list (up to N elements) that the user might have said, along with an indication of how confident the recognizer is of each potential match. The application software is then responsible for deciding which to use. (Specification, Page 2, lines 3-12). The claimed invention, however, intelligently utilizes user-specific context information in conjunction with the N elements to improve speech recognition. Thus, although the claimed elements include some previously known features of N-best processing, the key to the invention is the combination of these elements with intelligent use of user-specific context information to arrive at an *improved solution* for N-best processing.

Applicant respectfully submits that the combination of Kuhn and Kanevsky do not render the claimed invention unpatentable because they do not teach various elements of the claimed invention. For example, neither Kuhn nor Kanevsky, alone or in combination, teach or suggest "selecting elements of uncertainty" and "user-specific context information" where the user-specific context information is selected from a database based on the selected elements of uncertainty, as claimed. The Examiner points to Col. 4, lines 48 – 54 and Figure 2 of Kuhn as teaching "the dialog manager has a user profile data store 56 ("user-specific context information'), which stores information about the user's previous information selections; thus, this data store helps the dialog manager tune its prompts to best suit the user's expectations." The Examiner concludes that this teaches the claimed element but Applicant respectfully disagrees. The section of Kuhn referred to by the Examiner essentially describes a series of questions used by a dialog manager to obtain information from the user. The information may then be stored in a user profile data store. (Kuhn, Col. 4, lines 48-54). The "information" in the user profile data store in Kuhn is used by the dialog manager to tune its *prompts*, not necessarily the results provided to the user. In other words, the scheme in Kuhn utilizes the information from the user to fine tune its questions to the user and utilizes the user's answers to narrow down a selection for the user. The claimed invention does not utilize the user context information to tune its prompts, rather the user context information is used directly to narrow down a selection (i.e., the information is examined to select a phrase from one or more recognized phrases and then used to eliminate phrases within the one or

more recognized phrases). Additionally, the scheme does not "select the elements of uncertainty", as claimed.

The Examiner additionally argues that although Kuhn omits an elimination procedure to select a final phrase, Kanevsky discloses these elements. Applicant is somewhat confused by the argument presented by the Examiner, but to the best of Applicant's understanding, the Examiner appears to assert that since Kanevsky teaches "based on the user's response, intermediate decoding alternatives are narrowed, eliminating choices that are incongruous with the user's response" (Kanevsky, Col. 5, lines 4-9, Figure 2, step 132), Kanevsky teaches the element of "eliminating phrases within the one or more recognized phrases based on the user-specific context information regarding the elements of uncertainty." Applicant respectfully disagrees. First, the claimed invention includes user-specific context information that is selected from a database, while Kanevsky teaches information obtained from a user via interactive dialogs (similar to Kuhn). Additionally, based on the user's input, the scheme in Kanevsky eliminates "choices that are incongruous with the user's response", rather than "eliminating phrases... based on the user-specific context information regarding the elements of uncertainty." Kanevsky essentially simply asks the user to make the elimination (answer questions to enable elimination), while the claimed invention is directed to a scheme to utilize user-specific context information *about specific elements of uncertainty* to eliminate phrases.

Again, Applicant respectfully highlights the fact that the claimed invention relies on a novel combination of elements, interacting in a manner to achieve improved N-best speech processing. The Examiner points to discrete sections of the claim elements and suggests that Kuhn and Kanevsky teach or suggest the claimed invention, but at least for the reasons discussed above, the Examiner has failed to show that Kuhn and Kanevsky teach or suggest these specific steps performed in the manner claimed, to improve N-best processing.

For all the foregoing reasons, Applicant respectfully submits that Kuhn and/or Kanevsky, alone or in combination, do not render Claims 6 and 15 (and all claims dependent on these independent claims) unpatentable under 35 U.S.C. § 103 and respectfully request the Examiner to withdraw his rejection.

With respect to Claim 26, the claim is a system claim corresponding to the method and article of Claims 6 and 15. As such, although presented in a different format, this claim includes any of the same elements discussed above with respect to Claims 6 and 15. Thus, although Claim 26 differs slightly in its wording of the elements than Claims 6 and 15, at least for the reason discussed above, Kuhn and Kanevsky nonetheless do not teach core aspects of this novel combination of elements. Applicant therefore respectfully submits that Kuhn and/or Kanevsky, alone or in combination, do not render Claim 26 unpatentable under 35 U.S.C. § 103 and respectfully requests the Examiner to withdraw the rejection.

In summary, Applicant respectfully submits that Kuhn and/or Kanevsky, alone or in combination, do not teach or suggests all elements of independent Claims 6, 15 and 26. As a result, Applicant submits that Kuhn and/or Kanevsky do not render independent Claims 6, 15 and 26 (Claims 7, 9, 16 and 18 that are dependent on the independent claims) unpatentable. Applicant hereby respectfully requests the Examiner to withdraw the 35 U.S.C. § 103 rejections to Claims 6, 7, 9, 15, 16, 18 and 26.

CONCLUSION

Based on the foregoing, Applicant respectfully submits that pending Claims 6, 7, 9, 15, 16, 18 and 26 are in condition for allowance. Applicant therefore respectfully requests an early issuance of a Notice of Allowance in this case. If the Examiner has any questions, the Examiner is invited to contact the undersigned at (714) 669-1261.

If there are any additional charges, please charge Deposit Account No. 50-0221.

Respectfully submitted,

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